

IN THE SPECIFICATION:

Please amend the paragraph beginning at page 1, line 25, as follows:

Note: Visible light, low-light and/or infrared, thermo-luminous infrared camera devices and photograph devices and/or numerical code (digital) camera devices in the present specification are hereinafter referred to as photo devices. Visible light, low-light camera devices or digital camera devices may include color or mono-color camera devices or digital code camera devices.

Before line 1 of page 5 right above “Summary of Invention”, please insert the following paragraph:

At present, there are difficulties for the face identification technology in a vehicle that should be solved:

- (1) The illumination in the driver's cab is changed uninterruptedly, so the face influence is correspondingly changed, which increases the identification difficulty. That problem can be solved through using the black-white or infrared camera head in the present invention.
- (2) Changed facial expression of a driver. It can be solved through using “Facial unusual expression identification subprogram”.
- (3) The drivers always wear sunglasses or other face ornaments. It can be solved through using “Facial ornaments identification subprogram”.
- (4) The criminal suspect wears a mask or other face ornaments. It can be solved through using “Mask identification subprogram” and “Facial ornaments identification subprogram”, and using visible light, low-light and/or infrared, thermo-luminous infrared camera and/or numerical code camera.
- (5) Driver's face is not directed at the camera, which will resulted in different face identification characteristics. It can be solved through using “Face tilt identification subprogram”.

Please amend the paragraph beginning at page 12, line 11, as follows:

Figure 25 is the present invention's block diagram of human face and/or animal characters identification and judgment system.

Between line 14 and line 15 of page 12, please insert the following paragraphs:

Figure 27 is a block diagram of network monitor program on the face identification program.

Figure 28 is a block diagram of network monitor program on the person's face identification program who wears facemask, or facial ornaments.

Please amend the paragraph beginning at page 12, line 28, as follows:

Camera lens 111, and sensitive elements such as charge-coupled device (CCD) or CMOS sensitive element 112. According to design requirements, image sensor can use charge-coupled device (CCD), charge-injected device (CID), charge-scanning device (CSD), photodiode array device (PAD), MOS image sensor, CMOS image sensor and other kinds of image sensors, in which CMOS image sensor (Complementary Metal oxide semiconductor Image Sensor) may be: CMOS—PPS, CMOS—APS and logarithmic transformation CMOS image sensor and so on. The structure of CMOS—PPS is light-sensitive diode, and CMOS—APS has light-sensitive diode and optical grating structures etc. According to design requirements, camera lens 111 can be every type of camera lens such as fixed-focus lens, or zoom lens, or automatic light-metering and self-adjustable aperture lens, or fixed aperture lens, or automatic focus lens, or fixed focus lens, or a small lens module in the camera module with 2.5 times of optical zoom and automatic focus functions made by SEIKO (精工爱普生) and inserted in mobile telephone, or other kind of lens. As CMOS/CCD sensitive elements used in numerical code camera and pickup camera can receive infrared waves, in order to take the infrared picture and dynamic images, it is required to equip with an infrared filter and form an infrared camera device. The infrared filter can be M&K 1000 infrared filter made by USA M&K optical company, and HOYA infrared photo-scope etc. Of course, other kind of infrared camera devices can be used. The image sensor can be mono-functional or multi-functional, for example, they can be sensitive to visible light or infrared light individually or such sensors that are sensitive to both of visible and infrared lights. Signal processor DSP 113 processes sound signals, the signals received by the sensitive elements, video and voice frequency output signals, and/or image and sound signals. Pickup MIC115 receives sound signal, the amplifier 114 amplifies the output signals from the pickup MIC and/or the sound signals after digital signal processing. Picture-taking and sound-receiving module power source 116 and output interface 117. According to the design requirements, the output interface

may be analogue TV voice frequency signal output interface, or digital signal output interface, or cable interface, such as, analogue TV voice frequency signal output interface, and digital signal output interface USB and 1394 and so on, or other kinds of radio communication interfaces such as infrared interface or 802.11x, or NEC electronics' parallel-to-serial converter interface, bridge connecting IC "μPD161451", the image data transmission lines are reduced from 18 to 4 lines. Through those 4 signal lines (2 pairs), a maximum 128M bit/s transmission speed can be available. Other radio communication systems, and Lanya(蓝牙) personal local network and other radio communication input/output interfaces can also be used.

Please amend the paragraph beginning at page 15, line 21, as follows:

CPU 120 includes: CPU 121, which can be a single CPU or multiple CPUs for parallel or serial operation, and can be single core or multi-core CPU. According to the design requirements, each kind of CPU can be used, such as the CPU for desk-top computer, notebook computer, industrial control computer, pocket computer, each type multi-media computer etc, or such CPU that PXA series Intel processor with ARM structure such as Intel PXA270 processor with multi-configurations that has clock rate 312 MHz ~ 624 MHz and equips with 64-256 MB Intel StrataFlash flash register, and also can be TI OMAP series CPUs, such as OMAP2420, IBM cell multi-core processor, and some special systems that consist of each kind of gate arrays. Dynamic RAM 122 and ROM can be flash memory 1, 123a can use each kind of ROM, such as ROM, EPROM each kind and type of FLASH ROM and so on. In ROM there can be memorized each kind of data of basic I/O system (BIOS), control system program, computer operating system, application system program for processing by CPU according to alarm design requirements. Those computer operating systems, application system programs and each kind of data programs can also be memorized in a mobile memory card 2 (FLASH ROM) 123b, so the dynamic RAM 122 and ROM 123a will store only basic I/O system (BIOS) for processing by CPU, but mobile memory card 2 (FLASH ROM) 123b as an operating system start disc will store only the data of operating system each kind of control system program, application system program and so on. This mobile memory card 2 (FLASH ROM) 123b can be used as a magnetic disc C of a computer, or the operating system program and each kind of application system program can be stored in a hard disc or other type memories. Because of large vibration, the hard disc is easily

broken, so it will be suitable to use a mobile memory card 2 (FLASH ROM) 123b. In the case of non-moving and/or non-vibrating condition, hard disc can still be used instead of mobile memory card. Thos system program can include, for example, the operating system can use Windows, Unix, Linux, Nucleus™, OSE VxWorks®, Windows® CE .NET, OMAP Technology Centers provide key systems integration and development, Symbian OS and other kind of operating system programs. The camera control system program and each kind of biological identification program such as face identification system program, fingerprint identification system program, iris identification system program, retina identification system program, handwriting identification system program, voice recognition system program and so on. ID system such as secret codes input identification system program, output image and/or voice compression circuit 125 and other control system program, alarm control system program, automobile status recorder (Auto Black Box) system program, and side-looking and/or forward looking, and/or back looking camera devices and/or auto radar module 170 monitor the conditions at front, back, right and left of a running automobile, send out danger signal immediately to protect it from impacting, indicate and/or take safety measures automatically immediately, and/or automobile automatic drive system according to road sign to control vehicle's direction and speed. Those control application system and their corresponding software can be increased or decreased according to the design requirements, or combine each other to form a new assembly of safety defense and alarm system. Mobile memory card 2 (FLASH ROM) 123b and mobile memory card 3(FLASH ROM)123c can use each kind of movable semiconductor flash-memorizing card, such as CF card (Compact Flash Card), SM card (Smart Media Card), MMC (Mult Media Card), SD card (Secure Digital Card), Memory Stick Pro and Memory Stick, USB flash memorizing card (flash memory ROM Card for USB interface) and so on. That mobile solid memory 123b\123c can also use each type of non-volatile semiconductor memory, such as each kind of FLASH ROM, EPROM and so on. That flash memorizing memory 2 (FLASH ROM) 123b 123c can be mobile memory card, or can be non-mobile printed-circuit board, on which a flash memory (FLASH ROM) 123b is mounted.

Please amend the paragraph beginning at page 20, line 8, as follows:

Communication and/or anti-interference communication module 130 includes: RF signal transmitting and receiving module 131 that is controlled by the controller 132, memory 133, voice processor 136 and pickup and speaker 137, coder 134, key-input pad 135 and other devices and circuits. The communication between the communication module 130 and CPU 120 is carried out through I/O circuit. According to the design requirements, each kind of radio network communication system modules or their overall unit can be used, such as, (I) common network equipment: GSM, CDMA, CDPD (Radio data common network) and so on; (II) Group communication: 350M, 800M and each kind of group system; (III) General radio station: Using special purpose signal channel and MODEM radio communication network and each kind of communication system as well as high-speed communication networks, such as 3G, 4G high-speed communication networks to be developed in the future, and satellite communication, or each kind of radio network communication systems, such as "Air Interface for Fixed Broadband Wireless Access Systems" 的 IEEE802.XXX 中的 IEEE 802.1XX 的 IEEE 802.11X、 IEEE 802.16X、 IEEE802.2XX、 USA Flarion company's Flash-OFDM、 Intel company's WiMA、 XZig — Bee、 Mobile-Fi、 弗拉里恩 company's Flash-OFDM radio technology and Ultrawideband and other standard radio network communication systems, or using wireless intercom system, radio station system, such as USA PCC company's (Pacific Crest Corporation) high-speed wireless data transmission radio station EDL and each kind of radio communication system, or using radio anti-interference monitoring communication system and other kinds of anti-interference radio communication and monitoring systems at the same time, and Lanya (蓝牙) communication system and other wireless communication systems, and wireless communication system modules, such as Siemens company's GSM module AC35 - GPRS、 GSM module AC35 - GPRS and GSM module TC 35 - dualband and other kinds of communication modules and overall unit circuits, or Shenzhen Waveguide company's MOP Net (Waveguide) C81X and each kind of built-in or building-out radio network modules that are suitable for notebook computer or desk-top personal computer. C81X uses USB interface, which can carry out GPRS digital communication in GSM network. The communication modules send each kind of data to the control center, and/or receive each kind of commands from the communication center. The control center needs the equipment that receive each kind of data

from the communication center and send those data and the commands to the communication center and should also have monitoring and processing program with face identification and radio communication functions for automobile safety defense and alarm system monitor and control center.

Please amend the paragraph beginning at page 39, line 13, as follows:

(2) A monitor processing method to verify whether or not the driver wears face masks or face ornaments. That monitor method includes “Facemask identification system program”, and/or “Facial characteristics and/or biological characteristics identification system program” and/or “Facial ornaments identification system program” and/or “Facial unusual expression identification system program”.

Please amend the paragraph beginning at page 40, line 13, as follows:

(B) The person wears a facemask that can transmit infrared but the visible light. Therefore, the visible light camera devices may take only the images of the facemask, and the infrared, thermo-luminous infrared camera devices (and thermo-luminous infrared sensing and monitoring devices) can take the real face images of that person. The face characteristics taken by three kinds of camera devices are not the same. It is possible to identify the change of facial expression through “Face tilt identification system program”, give a prompt to the person to be identified who should make a special expression, and then watch the change of facial expression of the person.

Please amend the paragraphs beginning at page 52, line 26 and ending at page 53, line 3, as follows:

The principle and method of human face characters and/or animal characters identification and judgment of the present invention includes the following processing procedures:

(a) Starting ; (b) The camera devices capture the images of the animal; (c) Search after human face and/or animal images; (d) Identify human face and/or animal characters; (e) Compare between the identification results and the characters of each kind of animal stored in the biological characteristics databank; (f) Identify which person or which kind of animal it is; (g)

Adjust whether or not the person and/or that animal has a harmfulness; (h) If it has no harmfulness, then (i) Enter into the operation menu; (j) If it has a harmfulness, then (k) Quit and make an alarm.

According to the design requirements, it is possible to identify human face characters and/or animal characters, and/or carry out searching for human face images and/or animal images. Besides, send the human face images and/or animal images, human face image characters and/or animal characters to the monitor and control for processing.

Between line 13 and line 14 of page 53, please insert the following paragraphs:

Figure 27 is a block diagram of network monitor program on the face identification program.

The present invention can connect to a radio communication network through radio a communication system and/or cable communication system and/or a remote monitor system. The monitor system can use existing computer system and computer monitor program for GPS network monitor system. Of course, a “Face identification and/or facemask identification alarm program” should be added in the GPS computer monitor program. That face identification and monitor program is the same as the face identification program of the present invention’s automobile safety defense and alarm system. The difference between them is that the automobile safety defense and alarm system searches the facial images among the images that are captured by the camera lenses, and the monitor program of the network searches the facial images among the images that are transmitted through a communication system. Those transmitted images can be non-processing ones, or the ones after searching for facial images, or the ones before searching for facial images, or the ones with facial characteristics of the person to be identified. Therefore, received images can include the images in each period.

(a). Qualified camera devices capture the images of the person; (b). Facial characteristics identification; (c). Make a comparison between the identified results and related contents in the facial expression databank; (d). The comparison is successful; (e) Whether or not the alarming signal sent from the persons in the vehicle is received already? (f). If no, enter into the operating menu; (g). If the comparison between the facial characteristics of the person and the facial characteristics of the special person in the databank is not successful, then make that face identification again. Those identifications may be limited in a certain times, such as N times, and

will be stopped till it is N^{th} time or when it is overtime. If the alarming angle is received already, then (i) alarming.

Figure 28 is a block diagram of network monitor program on the person's face identification program who wears facemask, or facial ornaments.

That face identification and monitor program is the same as the face identification program in Figure 16 of the present invention's automobile safety defense and alarm system program on monitor and identification of the person with facemask or facial ornaments to be identified. The difference between them is that the automobile safety defense and alarm system searches the facial images among the images that are captured by the camera lenses, and the monitor program of the network searches the facial images among the images that are transmitted through a communication system. Those transmitted images can be non-processing ones, or the ones after searching for facial images.

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IN THE DRAWINGS

Please add new figures 27 and 28 as shown in the attached sheets.